First Ciprofloxacin Resistant Salmonella Infection Acquired by a Child in Iran

Farzaneh Firoozeh*[1] ; Fereshteh Shahcheraghi[2]; Taghi Zahraei Salehi[1]; Mohammad Mehdi Aslani[2]

1- Department of Microbiology, Faculty of Veterinary Medicine,University of Tehran,Tehran, Iran

2-Department of Microbiology and Microbiology Research Center, Pasteur Institute of Iran, Tehran, Iran

mmaslani@yahoo.com

Background & Objectives: The frequency of multidrug-resistance (MDR) among Salmonella isolates has increased dramatically. Here we report the first case of ciprofloxacin-resistant Salmonella infection in a child in Iran.

Methods: Antimicrobial resistance profile was determined according to the Clinical and Laboratory Standards Institute. A double disk synergy test was used for the production of Extended-Spectrum β-lactamases (ESBLs). PCR assays were carried out to detect blaTEM, blaSHV and blaCTX-M beta lactamase genes.The presence of class 1 integrons was investigated by PCR assays.

Results: The *Salmonella enteritidis* isolate from the child was ciprofloxacin and extended-spectrum cephalosporins resistant and found to carry the blaCTX-M betalactamase gene and class 1 integrons, suggests that antimicrobial resistance determinants may to be located on the same genetic unit as the class 1 integrons identified here.

Conclusion: Resistance to ciprofloxacin and extended-spectrum cephalosporins, the drugs of choice for treating invasive salmonellosis especially in children is a public health problem.

Keywords: Salmonella; Ciprofloxacin; Resistant